

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. CONTRACT ID CODE	PAGE 1 OF 2 PAGES
2. AMENDMENT/MODIFICATION NO. 0001	3. EFFECTIVE DATE 08/29/03	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. (If applicable)	
6. ISSUED BY U.S. Army Engineer District, Wilmington 69 Darlington Avenue (28403) Post Office Box 1890 (28402-1890) Wilmington, North Carolina		7. ADMINISTERED BY (If other than Item 6) CODE		
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)		(X)	9A. AMENDMENT OF SOLICITATION NO.	
		X	DACW54-03-B-0011	
			9B. DATED (SEE ITEM 11) 08/13/03	
			10A. MODIFICATION OF CONTRACT/ORDER NO.	
			10B. DATED (SEE ITEM 11)	
CODE	FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

- ☒ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☒ is not extended.
- Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:
- (a) By completing items 8 and 15, and returning 2 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment your desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☐ is not, ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
 IFB NO. DACW54-03-B-0011...Maintenance Dredging, Morehead City Harbor, Brandt Island Pump-Out, And Beaufort Harbor, Carteret County, North Carolina is amended as follows:

- a. SECTION 01330: Delete existing ENG FROM 4288 (Page 1 and Page 2 of 2) in their entirety and replace with enclosed revised Page 1 and Page 2 of 2.
- b. SECTION 02325: Delete existing Table of Contents and SECTION in their entirety and replace with enclosed revised Table of Contents and SECTION.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		(Signature of Contracting Officer)	

NOTE:

Text that is added or revised by this amendment is replaced in its entirety and printed in bold and/or stamped appropriately.

The text changes may have necessitated reformatting of subsequent text or pages. If this is the case, those pages have also been issued as amended pages but are not underlined with bold text.

c. DRAWINGS:

Delete Plate No. P-2 in its entirety and replace with enclosed revised like-numbered drawing.

(End of Summary of Changes)

Encls
As stated

SUBMITTAL REGISTER (ER 415-1-10)										TITLE AND LOCATION		DATE			
										MHbr Inner, Brandt Island, Beaufort Hbr, Morehead City Harbor/Brandt Island		28 Aug 2003			
										CONTRACTOR		CONTRACT NUMBER		DACW54-03-B-0011 NA	
ACTIVITY No.	TRANS-MITTAL No.	ITEM No.	SPEC PARAGRAPH No.	DESCRIPTION OF SUBMITTAL	TYPE OF SUBMITTAL	CLASSIFICATION	REVIEWER	CONTRACTOR SCHEDULE DATES			CONTRACTOR ACTION	GOVERNMENT ACTION			
								SUBMIT NEEDED BY	APPROVAL NEEDED BY	MATERIAL NEEDED BY					
						FIO or GA	OFFICE / NAME								
SECTION - 01100 General Requirements															
		1	01100 1.12	List of Subcontractors	TEST REPORTS	FIO									
		2	01100 1.12	Progress Chart	TEST REPORTS	GA									
		3	01100 1.12	Quality Control Plan	TEST REPORTS	GA									
		4	01100 1.12	Certificate of Insurance	CERTIFICATES	FIO									
		5	01100 1.12	Completion of Corps CQC Course	CERTIFICATES	FIO									
		6	01100 1.12	Letter Appointing Superintendent	CERTIFICATES	FIO									
		7	01100 1.2	Qualifications of Testing Facilities	REPORTS	GA									
		8	01100 1.14(a)(1)	Pre-placement Beach Surveys	SURVEY DATA	GA									
		9	01100 1.14(a)(1)	Post-Placement Surveys	SURVEY DATA	GA									
		10	01100 1.14(b)	Brandt Is. Access Channel (As-Built)	AS-BUILTS	GA									
SECTION - 01355A Environmental Protection															
		1	01355A 1.7	Environmental Protection Plan	PRECON SUBMITL	GA									
		2	01355A 1.6	Non-Hazardous Solid Waste Diversion Rpt	REPORTS	FIO									
SECTION - 01525 Safety and Occupational Health Requirements															
		1	01525 1.2	Accident Prevention Plan (APP)	PRECON SUBMITL	GA									
		2	01525 1.2	Activity Hazard Analysis (AHA)	PRECON SUBMITL	GA									
		3	01525 1.2	Crane Critical Lift Plan	PRECON SUBMITL	GA									
		4	01525 1.2	Reports	TEST REPORTS	FIO									
		5	01525 1.2	Accident Reports	TEST REPORTS	FIO									
		6	01525 1.2	Monthly Exposure Reports	TEST REPORTS	FIO									
		7	01525 1.2	Regulatory Citations and Violations	TEST REPORTS	FIO									
		8	01525 1.2	Crane Reports	TEST REPORTS	FIO									
		9	01525 1.2	Certificate of Compliance (Crane)	TEST REPORTS	FIO									
		10	01525 1.2	Confined Space Entry Permit	CERTIFICATES	FIO									
SECTION - 02300 Earthwork															
		1	02300 1.5	Quality of Testing Laboratory	CERTIFICATES	GA									
		2	02300 1.5	Soil Test Reports	REPORTS	GA									
SECTION - 02325 Dredging															
		1	02325 Part 3	"Report of Operations" Daily Report	REPORTS	FIO									
		2	02325 1.3	Construction and Grade Stake Recovery	PRECON SUBMITL	GA									
SECTION - 02921A Seeding															
		1	02921A 1.3	Surface Erosion Control Material	PRODUCT DATA	FIO									
		2	02921A 1.3	Chemical Treatment Material	PRODUCT DATA	FIO									
		3	02921A 1.3	Seed Establishment Period	PRODUCT DATA	FIO									
RANGE : ALL SORT : SECTION & ITEM															

SUBMITTAL REGISTER (ER 415-1-10)										TITLE AND LOCATION		MHbr Inner, Brandt Island, Beaufort Hbr, Morehead City Harbor/Brandt Island		DATE		28 Aug 2003	
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								SUBMIT NEEDED BY	APPROVAL NEEDED BY	MATERIAL NEEDED BY	CODE	SUBMIT TO CORPS	CODE	DATE			
					CERTIFICATES	FIO or GA	OFFICE / NAME										
		4	02921A 1.3	Seed		FIO											

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SECTION 02325

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SECTION 02325

DREDGING

PART 1 GENERAL

1.1 DESCRIPTION OF WORK

(a) The work consists of furnishing plant, labor, materials, and equipment to perform dredging and associated work as required by these specifications and the contract drawings.

(b) The depth, bottom widths and lengths to be dredged are shown in the drawings. The depth, bottom widths and lengths to be dredged are based on the bottom conditions existing on the date of the contract survey and are subject to change based on the bottom conditions at the time of the before dredge survey. The Contractor shall remove sufficient material to provide the depth and side slopes shown on the drawings.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

ENGINEERING MANUAL (EM)

EM 1110-2-1003

(31 Oct 94) Hydrographic Surveying

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only or as otherwise designated. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Construction and Grade Stake Recovery Plan; G

1.4 WORK COVERED BY CONTRACT PRICE

The contract price per cubic yard for dredging includes all costs associated with plant, labor, equipment, and materials for dredging and disposal of all dredged material.

1.5 CHARACTER OF MATERIALS

Brandt Island. The material to be removed from Brandt Island consists of material that has been previously dredged from the Inner Harbor. The material is believed to consist primarily of sand, but may also include silt, clay, shell, wood, metal, or other debris. The Contractor will be required to remove and dispose of material in accordance with this contract.

Morehead City Inner Harbor and Beaufort Harbor Maintenance. The material to be removed is composed principally of shoaling that has occurred since the various areas were last dredged. Historically the material removed

from the various areas has consisted primarily of sand, silts, and clays. Wood, metal, loose rock and other sunken debris that may have become lodged in the channel may also be encountered.

1.6 NAVIGATION AIDS

There may be aids to navigation within the project boundaries. Some, or all, of such aids to navigation may need to be removed for the accomplishment of the contract work. Before the commencement of dredging, it shall be the responsibility of the Contractor to examine all channels to determine any need for moving of aids to navigation and to coordinate with the U.S. Coast Guard (USCG) and any other responsible parties to accomplish any needed movement. Any impacts to the work due to the inability of the Contractor to accomplish any needed movement of aids to navigation will not be the responsibility of the United States Government or of the Contracting Officer.

1.7 OVERDEPTH

1.7.1 Overdepth

This contract allows overdepth dredging. No payment will be made for any material that is removed from below the allowable overdepth or outside of the indicated side-slopes.

1.7.2 Side-Slopes

Material actually removed, within limits approved by the Contracting Officer, leaving final side-slopes no flatter than 1 vertical to 5 horizontal for Morehead City Harbor Range B and 1 vertical to 3 horizontal for all other channel reaches and Brandt Island Pump-out will be paid for, whether accomplished by dredging the original position or the space below the pay slope plane and allowing upslope materials to fall into the cut.

1.7.3 Excessive Dredging

Material taken from beyond the limits as extended in provision, side-slopes above, will be deducted from the total amount dredged as excessive dredging and will not be credited.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 ORDER OF WORK

a. Dredging. The order of work for dredging shall be:

- (1) Morehead City Inner Harbor, and Beaufort Harbor.
- (2) Brandt Island Pump-out.

b. Beach Fill. The order of work for placement of beach fill shall be:

- (1) Construct the berm along the length of beach from STA 47+25 to STA 100+00.
- (2) The Contractor shall then proceed west to Atlantic Beach for the Base Bid Beach Disposal Area or, if the Optional Bid Item is exercised,

to Atlantic Beach and Pine Knoll Shores for the Morehead City Harbor Section 933 Optional Bid Beach Disposal.

c. The Corps of Engineers has obtained clearances for this contract from federal and state agencies for placement of dredged material on the beach to begin on 1 November 2003. No placement of dredged material on the beach will be allowed after 30 April 2004. Pipeline and equipment may be staged on the beach before 1 November 2003 and removed from the beach after 30 April 2004.

3.2 NOTICES

(a) The Contractor shall give the Contracting Officer five (5) days advance written notice before commencing work.

(b) The Contractor shall also be responsible for requesting Government before-dredging surveys, in writing five (5) days prior to beginning dredging in an acceptance section. The Contractor shall also be responsible for requesting Government after-dredging surveys, in writing, three (3) working days prior to completion of an acceptance section.

3.3 DREDGE POSITIONING SYSTEM

Each dredge shall be equipped with an electronic positioning system, capable of positioning the dredge in the channel with accuracies equal to contract payment surveys (Class 1), as specified in the U.S. Army Corps of Engineers Engineer Manual, EM 1110-2-1003 (Hydrographic Surveying), latest edition. This positioning system shall be established, operated, and maintained by the Contractor during the entire period of the contract. The positioning system shall be used to precisely locate the dredge and shall be capable of displaying and recording the dredge's location in an acceptable coordinate system which can be related to, or is directly based on, the North Carolina Lambert State Plane Coordinate System. Navigation channel control, and shore station control, if required, will be provided to the Contractor in the same North Carolina coordinate system prior to commencement of work. It shall be the responsibility of the Contractor to have the positioning/navigation system reviewed and inspected by the Contracting Officer's Representative prior to commencement of work.

3.4 MISPLACED MATERIAL

Any material, including material lost through leaks in the pipelines, that is deposited or allowed to flow elsewhere than in places designated or approved by the Contracting Officer will be considered as misplaced material. If, in the opinion of the Contracting Officer's Representative, this misplaced material will in any way be a hazard to navigation, to normal activities of the public, or to the environment, the Contractor shall remove such misplaced material and deposit it where directed at the Contractor's expense.

3.5 DISPOSAL OF DREDGED MATERIAL

The Government furnished disposal areas are the beach disposal area as shown on the contract drawings.

3.5.1 Beach Disposal Area

(a) All dredged material removed by hydraulic pipeline dredge shall be deposited within the limits of the BASE BID BEACH DISPOSAL AREA or the OPTIONAL BID BEACH DISPOSAL AREA, as shown on the drawings. Typical beach disposal sections for the BASE BID BEACH DISPOSAL AREA and the OPTIONAL BID BEACH DISPOSAL AREA are shown on the contract drawings. Placement of the material within the disposal area for both the BASE BID BEACH DISPOSAL AREA and the OPTIONAL BID BEACH DISPOSAL AREA shall begin at Station 47+25. The material shall be placed to provide a transition from the existing +7.0-foot NGVD 1929 contour at Station 47+25 to the full construction berm width at elevation +7.0-foot NGVD 1929 at Station 62+25. The crest of the constructed berm is defined by offsets from the Corps of Engineers Baseline. Station offsets for the BASE BID BEACH DISPOSAL AREA construction berm are located in Attachment 3. Station offsets for the OPTIONAL BID BEACH DISPOSAL AREA construction berm are located in Attachment 4. Placement of dredged material shall continue down the beach as far as the quantity of dredged material will allow. Placement of the construction berm shall be constructed to the limits shown on the contract drawings. The west end of the beach fill shall also be transitioned over a 1,000-foot distance to tie into the existing +7.0-foot NGVD 1929 contour.

(b) A vertical tolerance of five-tenths (0.5) of one foot above and five-tenths (0.5) of one foot below the required berm grade of +7 feet NGVD 1929 will be permitted on the finished surface. Below the +7 foot NGVD 1929 line, the fill material will be allowed to assume its natural slope as directed by wave and water level conditions. The Contractor shall be required to redistribute and/or reshape any material placed outside the prescribed tolerances to conform to the requirements of the contract.

(c) It is not the intent of this contract to place dredged material along the entire length of the beach disposal area. However, it is the intent of this contract to leave the beach disposal area as natural looking as possible. Any existing dunes which must be altered by equipment shall be restored. Any back diking to prevent erosion of existing dunes shall be the responsibility of the Contractor. The areas shall be cleaned and mechanically leveled as soon as possible after completion of material placement. The Contractor shall provide a minimum of one dozer with operator to manage and control the disposal of dredged material during the entire time material is being placed on the beach.

(d) Materials

The dredging shall be accomplished so that the most suitable material available for beach renourishment is placed within the prescribed section. Suitable material shall be comprised of materials by ASTM D 2487 as SP, SP-SM, and SW. This material shall be predominantly of sand grain size with no more than 10% silt and clay material present. Should the dredge encounter materials not suitable for placement on the beach, the Contractor will be directed by the Contracting Officer to move to a more satisfactory location within the indicated borrow area.

(e) Objectionable Matter

Objectionable matter such as stumps, roots, logs, or other organic or inorganic debris having a diameter of 2 inches or more and/or a length of 1 foot or more, or accumulations of small vegetative growth or debris shall be collected and placed in a disposal area furnished by the Contractor and approved by the Contracting Officer as the work progresses. Objectionable matter such as large clay balls shall be broken up and mixed in with the beach fill section by way of tilling or other appropriate method

(f) Discharge Points

When the fill material is placed by discharging the material directly into the fill section, the dredge discharge points shall be manipulated and controlled by the Contractor in such a manner to minimize the loss of material into the surf zone.

(g) Longitudinal Dikes

For beach fill material placed by discharging the material directly into the fill section, the Contractor shall provide temporary longitudinal dikes and spreader and pocket pipe as necessary to prevent gullying and erosion of the beach and fill and to retain the fill on the beach and within the limits of the fill cross section. Longitudinal dikes shall initially be 300 feet long in advance of filling operations. Shorter lengths may be subsequently used if approved by the Contracting Officer. Groins, bulkheads, revetments, piers, storm drain outfall pipes, and other structures within the fill section shall be protected by the Contractor to prevent damage thereof by the Contractor's operations.

(h) Fill Adjustments

It is the intent of the Contracting Officer to control the yardage of the fill material along the beach to that which is needed to construct the applicable fill sections shown on the drawings by varying the width of the +7.0 foot NGVD 1929 construction berm. Note that the amount of material retained on the beach is assumed to be 20% less than the volume of material removed from the borrow area. The approximate width of the +7.0 foot NGVD 1929 construction berm is shown on the drawings and is based on the quantity of material to be placed and an assumed slope of the placed material of 1V:15H seaward of the crest of the construction berm to the point of intersection with the existing bottom. The actual width of the construction berm will be based on Government interpretation of the borrow area and beach profile surveys and the actual slope that the material assumes during placement. The Contractor shall maintain the fill section in a satisfactory condition at all times until final completion and acceptance of the work as specified in SECTION 01100: SUPPLEMENTARY SPECIAL CONTRACT REQUIREMENTS, paragraph, FINAL EXAMINATION AND ACCEPTANCE. Due to the constantly changing shoreline, the Contracting Officer may make minor alterations in the plan dimensions and/or slopes of the fill section in order to increase or decrease the volume of fill placed along the beach.

Beach survey field notes and computations shall be furnished to the Contracting Officer in advance of placement of the beachfill so that control of the quantities and adjustment to the fill section may be made if necessary. Surveys taken by the Contractor in accordance with SECTION 01100: SUPPLEMENTARY SPECIAL CONTRACT REQUIREMENTS, paragraph, SURVEYS AND SURVEY PERSONNEL shall be used as a guide to the Contracting Officer in making the alterations to the beach sections. No separate payment or adjustment in the unit price will be made as a result of these changes in dimensions and/or slopes of the design section, since the cost therefore

will be covered by payment for the total yards dredged at the contract price per cubic yard. The Contractor shall not remove any existing material that was in place before construction commenced and is above the design profile.

(i) The Contractor shall provide a total of two people, fully awake and alert, on the disposal area at all times pumping operations are in progress and, if in the opinion of the Contracting Officer it is necessary, during non-pumping hours. One dozer and operator shall be stationed at the dredging discharge line to ensure that the effluent is controlled in such a manner that high velocity discharge will not impinge on or cause erosion of the existing dunes. It shall be the responsibility of these individuals to monitor the pipeline for leaks as well as monitor the discharge to be certain no material is allowed to be deposited outside the limits of the disposal area.

(j) Any material, including material lost through leaks in the discharge line that is deposited or allowed to flow elsewhere than in places designated or approved by the Contracting Officer, will not be paid for and the Contractor may be required to remove such misplaced material and deposit it where directed at his expense.

3.5.2 Construction and Grade Stake Recovery Plan

(a) It is the intent of the Government that the welfare of the public be protected during dredging and beach construction activities. It is also the Government's intent to protect the welfare of the public after beach construction activity is completed. Beach grade stakes left in place, either by being broken off at or below grade, bulldozed over, or left in the surf creates a long term public hazard to beach goers and swimmers. Therefore, the Contractor shall prepare and submit for the Contracting Officer's approval a "Construction and Grade Stake Recovery Plan". The "Construction and Grade Stake Recovery Plan" shall outline steps necessary to recover all grade stakes installed for purposes of constructing beach disposal sections. The Recovery Plan shall maintain a log or map to inventory all the stakes used in the beach disposal construction. The log/map shall include information concerning the location, installation, and recovery of all stakes. The Contractor shall make this log/map available for review by the Contracting Officer upon request. Upon completion of the beach disposal, the Contractor shall furnish the log/map to the Contracting Officer.

(b) Grade stakes and any other stakes for any purpose shall be made of such material that can and shall be removed intact after filling to cross sections accepted by or as directed by the Contracting Officer. All stakes shall have sufficient length above grade so they may not be accidentally covered by fill. The Contractor shall consecutively number each grade stake, shall clearly mark that number upon the stake, and shall record the location of each numbered stake in a grade stake log/map. The removal of each numbered stake shall be recorded in the grade stake log at the time of the stake removal. At the request of the Contracting Officer, all of the grade stakes shall be displayed after their removal to demonstrate those stakes that have been removed. All grade stakes placed within the limits of the beach fill work shall be numbered and shall be recorded in the log/map. It is the Contractor's responsibility to track, locate, and completely remove all grade stakes in their entirety to the satisfaction of the Contracting Officer.

3.6 PIPELINE ROUTE

3.6.1 General

The dredged material must be transported over routes that may include public property, navigable and unnavigable water, and under fishing piers. Prior to installing the pipeline, the Contractor shall devise a specific pipeline route that will be used and obtain the written approval for the specific pipeline route from the Contracting Officer. The pipeline route shall be devised so as to minimize adverse impacts on vegetation, wildlife, dunes and beach traffic. Two pipeline routes have been identified on the contract drawings for the Contractor's use. The two pipeline routes on the contract drawings have all necessary clearances. A copy of the easement from Seaspray Condominium is in Attachment 1 of this section. Any deviation from the two pipeline routes shown on the contract drawings shall require approval from the Contracting Officer. It shall be the Contractor's responsibility to obtain all necessary clearances and permits for the alternate pipeline route. The Contractor shall furnish, install, and remove all necessary ramps or perform all necessary tunneling, trenching and repairs to pavements as required by State or local authorities at such pipeline road crossings where traffic would be obstructed, and shall maintain traffic control at these locations. The Contractor shall deliver notice to the North Carolina Department of Transportation and the Town of Atlantic Beach a minimum of 5 days prior to the commencement of installation of the dredge pipeline crossings at the road. This notice should be sent to:

Mr. David Livingston
Highway Maintenance Engineer
NC State Department of Transportation
139 Masontown Road
Newport, NC 28570
(252) 233-4811

and

Mr. Pete Allen
Town Manager
Town of Atlantic Beach
Post Office Box 10
Atlantic Beach, NC 28512
(252) 726-2121

Pipeline routes in water shall stay either submerged or floating, but shall leave the channels clear of obstruction and shall have lights and signs to clearly mark and identify pipe location. Pipeline routes on land shall cross streets on one side only leaving one lane open for traffic.

3.6.2 Dune Crossing

It is the intent of these specifications to minimize the damage to the dunes and vegetation thereon. The Contractor shall exercise extreme care in placing the pipeline across the dunes to the beach. The designated route shall be followed to the extent practicable and in no case will deviations be made without the written approval of the Contracting officer. The Contractor will not be allowed to grade, or otherwise disturb the natural dunes. Equipment used in placing and removal of the pipeline shall meet the approval of the Contracting Officer.

Any degradation of the dune area caused by the Contractor's operation shall be restored as near as practicable to the natural condition. This restoration may include sprigging the area with American Beachgrass (*Ammophila breviliquolata*), as directed by the Contracting officer. Areas planted with American Beachgrass shall be fertilized with 30-10-0 analysis at the rate of 300 pounds per acre.

3.6.3 Pipeline Leakage

A tight dredge discharge pipeline shall be maintained along all sections of the pipeline to prevent spilling of dredged material outside of the beach disposal area. To minimize damage caused by leaks in the pipeline on the land section of the line, the Contractor shall provide a periodic patrol of the pipeline. A minimum of 12 daily inspections shall be made by the Contractor during disposal operations (four (4) inspections each 8-hour shift). The Contractor shall burlap and strap weld all joints of shore sections of pipeline. When significant leaks occur in the pipeline which can cause erosion of the existing beach or a completed beach fill section and/or appears to be a safety hazard to the public, the Contractor shall immediately cease pumping operations until the pipeline is repaired.

3.6.4 Booster Pumps

The location of all booster pumps must be approved in advance by the Contracting Officer. All booster pumps shall be fitted with appropriate noise control devices as designed by the manufacturer. The noise control devices shall be maintained in proper condition throughout the life of the contract.

3.7 TEMPORARY SAFETY FENCING

Before any pumping or discharging of beach fill material can occur, the Contractor shall furnish and erect temporary safety fencing at a distance of 500 feet on either side of the discharge point for the beach fill placement. The temporary safety fencing shall totally encompass the general area around the discharge point for beach fill and shall be moved along the beach in conjunction with the location of the discharge point. The temporary fencing shall provide a 6-foot wide travel way between the dunes and the fence to allow beachgoers to safely walk around the work area. The intent of the safety fencing is to restrict and limit the public access to and around the general area of the discharge point. The temporary safety fencing shall be a high visibility orange colored, high density polyethylene grid or approved equal, a minimum of 42 inches high, supported and tightly secured to steel posts located on maximum 10 foot centers. The Contractor shall assign a person to monitor and patrol the temporary safety fence during any pumping operations to insure that the public is kept out of and away from the area where the pumping operations is occurring. The safety fencing shall be maintained by the Contractor during the life of the contract and, upon completion and acceptance of the beach fill work, shall become the property of the Contractor and shall be removed from the work site.

3.8 TEMPORARY WARNING SIGNS

Before any pumping or discharging of beach fill material can occur, the Contractor shall furnish and erect temporary warning signs along and around the outside perimeter of the temporary safety fencing. One temporary warning sign shall be placed along each side of the temporary safety fencing and for each direction accessible to the public. The temporary

warning sign shall be moved along the beach in conjunction with the location of the discharge point and the temporary safety fencing. The intent of the warning signs is to warn the public of the hazards and danger of the beach filling operations, construction equipment, and the discharge point. The signs shall be fabricated using 3/4", Douglas Fir, Exterior Marine-Grade, HDO plywood with 4"x4"x12' treated, No. 2 Southern Pine posts installed in 3 feet deep by 12-inch diameter holes backfilled with compacted soil. Sign faces shall be non-reflective vinyl. All letters and logos shall be die-cut or computer-cut. Letter and logos sizes and application to the plywood panel shall conform to the graphic format shown in the U.S. Army Corps of Engineers Signs Standard Manual. The Communications Red panel on the left side of the construction project sign, with Corps logo (reverse version), shall be screen printed onto the white background. Copies of the sign standards manual can be obtained from the Contracting Officer for specific fabrication and installation requirements.

Legends and logos for the temporary warning signs shall be as shown on Attachment 2. No direct payment will be made for the warning signs. The warning signs shall be maintained by the Contractor during the life of the contract and, upon completion and acceptance of the beach fill work, shall become the property of the Contractor and shall be removed from the work site.

3.9 COMPLIANCE WITH APPLICABLE NAVIGATION RULES AND REGULATIONS, MARINE EQUIPMENT

The Contractor shall ascertain that all vessels used in performance of this contract are commanded, equipped, navigated and/or operated in strict compliance with the general regulations of the Department of the Army and of the U.S. Coast Guard, including but not limited to, applicable safety, environmental, and navigational rules and regulations in the Code of Federal Regulations.

Installations (i.e., pipelines, pipeline risers and/or booster stations) as may be placed by the Contractor on or over the seabed of the work area are obstructions or structures in accordance with Title 33 CFR SUBPART 67.01. Such installations or portions thereof, are subject to applicable regulations set forth in Title 33 CFR, parts 64, 66 and 67. The responsibility for notifying the Commander, Fifth Coast Guard District, per Title 33 CFR SUBPART 67.40 and the responsibility of securing necessary installation approvals therefrom, rests with the Contractor. The further responsibility for maintaining and operating his job site installation and vessels in accordance with applicable laws also rests with the Contractor.

3.10 FLOATING PLANT INSPECTION AND CERTIFICATION

All floating plant regulated by the U.S. Coast Guard (USCG) shall have current inspections and certificates issued by the USCG before being placed in service and a copy shall be posted in a public area on board the vessel. A copy of any USCG Form 835 issued to the vessel in the preceding year shall be onboard the vessel and shall be available to the Contracting Officer upon request.

All dredges and quarter boats not subject to USCG inspection and certification or not having a current American Bureau of Shipping (ABS) classification shall be inspected in the working mode annually by a marine surveyor accredited by the National Association of Marine Surveyors (NAMS) or the Society of Accredited Marine Surveyors (SAMS) and having at least five years experience in commercial marine plant and equipment. All other

plant shall be inspected annually by a qualified person. The inspection shall be documented, and a copy of the most recent inspection report shall be posted in a public area on board the vessel and a copy shall be furnished to the Contracting Officer upon request. The inspection shall be appropriate for the intended use of the plant and shall, as a minimum, evaluate structural integrity and compliance with NFPA 302, Fire Protection Standard for Pleasure and Commercial Motor Craft.

3.11 QUALITY CONTROL

The Contractor shall establish and maintain quality control for the dredging and all other operations in connection therewith to assure compliance with contract requirements. The Contractor shall inspect for compliance with contract requirements and record the inspection of all operations including but not limited to the following:

Dredging is confined within the limits shown on the drawings.

The pipeline is periodically inspected for leakage as specified.

All joints of pipe for discharge line are tight and sound.

A copy of these quality control records, as well as the records of corrective action taken shall be furnished the Government as directed by the Contracting Officer.

3.12 MEASUREMENT AND PAYMENT

(a) The contract completion date for placement of dredged material on the beach is 30 April 2004. In the event the Contractor is unable to dredge at least 85% of the advertised quantity for Bid Item DREDGING, BRANDT ISLAND PUMP-OUT, by 30 April 2004, there shall be no entitlement to an equitable adjustment for this bid item pursuant to Contract Clause 52.211-18, Variation in Estimated Quantity.

(b) The total volume of all material removed and to be paid for under this contract will be measured by the cubic yards in place, by computing the volume between the bottom surface shown by soundings of the last survey before dredging each acceptance section and the bottom surface shown by the soundings of a survey made as soon as practicable after completion of each acceptance section. The calculations will exclude any volume of material removed from beyond the limits of the side-slopes and/or below the allowable overdepth and will be further reduced by the volume of any misplaced material. All pay quantities shall be determined from before and after dredging surveys conducted by the Government. The quantities measured as provided above will be paid for at the applicable contract unit price per cubic yard for bid items DREDGING, BRANDT ISLAND PUMP-OUT, DREDGING, MOREHEAD CITY HARBOR, and DREDGING, BEAUFORT HARBOR, which price and payment shall constitute full compensation for dredging and furnishing all labor, tools, equipment, services and incidentals necessary to complete the work in accordance with this section of the specifications.

(c) The drawings referred to in Section 01100, paragraph, CONTRACT DRAWINGS AND SPECIFICATIONS, are believed to represent the conditions existing on the dates of survey. The bottom conditions will be determined by before dredging surveys prior to commencement of dredging and new maps representing the before dredging bottom conditions of the area to be dredged will be furnished to the Contractor. Determination of quantities removed and the deductions made therefrom to determine quantities by

in-place measurement to be paid for in the areas specified, after having once been made, will not be reopened, except on evidence of collusion, fraud, or obvious error.

(d) Monthly partial payments will be based on approximate quantities determined by the information from soundings taken behind the dredge. Discrepancies in the estimated amounts will be adjusted as required to conform with volumes computed in accordance with paragraph (a) above. Quantities calculated shall be based upon satisfactory hydrographic surveys performed by the Contractor in a manner agreed upon by the Contracting Officer.

(e) Method of Survey. Topographic and hydrographic surveys will be performed by the Government to determine the volume of material removed under this contract. Topographic surveys will be accomplished using GPS techniques. Hydrographic surveys will be accomplished with the use of a fully automated survey vessel. Horizontal location of survey lines and depth sounding points will be determined by the use of an automated positioning system utilizing either a microwave line-of-sight system or differential global positioning system. Depth soundings will be taken using a 200 kHz depth sounder/digitizer system. Payment for material removed will be based on 200 kHz depth soundings and topographic surveys. The fathometer will be adjusted twice daily using the bar check method to account for variations of the speed of sound in the water at the survey area. On automated surveys, position and depth data will be collected, stored on magnetic media, and subsequently processed by the Government for map preparation and quantity computations.

(f) Data will be secured by running survey lines parallel to the longitudinal axis of the channel. A sufficient number of lines will be run to assure good coverage of the bottom. A minimum of two (2) lines will be run within the grade slopes. The after dredging survey will be performed in the same manner as the before dredging survey. Weather permitting, before and after dredge surveys will be made during the same tidal stage.

(g) Beach profile surveys for pre-placement survey and post-placement shall be included in the unit price for the Maintenance Dredging Bid Items. Payment shall constitute full compensation for all labor, equipment, tools, and incidentals necessary to complete the work specified herein. Requirements for the onshore and offshore beach profile surveys are defined in Section 01100, paragraph SURVEYS AND SURVEY PERSONNEL.

3.13 COMMUNICATIONS

The Contractor shall furnish and maintain a radiotelephone and a cellular phone on the dredge(s) throughout the period of the contract. The plant will not be allowed to begin work until the VHF marine band radio is installed and in good working order and a properly operating cellular phone is on board. The VHF marine band radio shall be capable of operation from the dredge's main control station and capable of transmitting and receiving on a frequency or frequencies within the 156-162 megahertz band using the classes of emissions designated by the Federal Communications Commission.

3.14 LOCAL OFFICE

The Contractor shall maintain an office in the immediate vicinity of the project. This office shall be equipped with at least one operable telephone and fax machine, which provides both local and long distance

service. The number for this equipment shall be provided to the Contracting Officer's Representative during the preconstruction conference, and the telephone shall be monitored and answered by contractor personnel during working hours. This requirement may be waived by the Contracting Officer if suitable facilities are available on the dredge.

3.15 SUBMERGED PIPELINE

(a) In the event the Contractor elects to submerge his/her pipeline, the location of the submerged pipeline shall be marked with signs, buoys, flags, and lights conforming to U.S. Coast Guard regulations and to the complete satisfaction of the Contracting Officer.

(b) At locations where submerged pipeline crosses a navigation channel, the Contractor shall place the pipeline at such a depth that the top of the pipe is below the authorized depth of the channel. The Contractor shall install and maintain red over red lights on both sides of the navigation channel marking the location of the submerged pipeline. At locations supported by trestle, the Contractor shall also install and maintain flashing yellow lights at 10 meter intervals from the red light marking the location of the pipeline to the shoreline. The Contractor shall erect and maintain a warning sign at locations where submerged pipeline crosses a recognized navigation channel. The signs shall be 4' by 8' in size and read:

"CAUTION: SUBMERGED PIPELINE CROSSINGS."

(1) Red over red lights shall be visible all around the horizon, visible for at least 2 miles on a clear dark night and one meter apart in a vertical line with the lower light at the same height, not less than 1 and not more than 3.5 meters, above the water as the yellow lights.

(2) Flashing yellow lights shall flash at a rate of 50 to 70 times per minute, shall be visible all around the horizon, shall be visible for at least 2 miles on a clear dark night, shall be not less than 1 and not more than 3.5 meters above the water, shall be equally spaced.

(c) When the submerged pipeline runs outside the navigation channel, the Contractor shall mark the pipeline route with buoys with yellow lights at intervals not to exceed 50 meters unless otherwise approved by the Contracting Officer and at abrupt changes in direction. The Contractor shall also erect signs at one (1) mile intervals along routes of submerged pipelines. The signs shall be 4' by 8' and read:

"CAUTION: SUBMERGED PIPELINE."

(d) All lights shall be visible for at least 2 miles on a clear dark night, visible all around the horizon, not less than one (1) and not more than 3.5 meters above the water and equally spaced.

3.16 EXISTING STRUCTURES

The Contractor shall exercise appropriate care when dredging adjacent to or in the vicinity of existing structures. Any damage to existing structures caused by impact from the dredge or other plant or by dredging in excess of specified limits, shall be repaired to the satisfaction of the Contracting Officer at no cost to the Government or to the owners of the structure.

3.17 QUANTITIES SUMMARY

The quantities listed in the table below include the volumes present at the time of the surveys indicated in the contract drawings, plus shoaling anticipated before dredging begins.

Should the total quantity of material to be paid for under the contract exceed the limit established in the clause entitled "Variations In Estimated Quantities" additional time will be allowed at the rate of one (1) calendar day for the average daily production rate achieved by the equipment used on the project for excavation in excess of the established limit.

<u>Acceptance Section</u>	<u>Required Depth (ft)</u>	<u>Cubic Yards to Required Depth</u>	<u>2-Foot Allowable Overdepth</u>	<u>Total Cubic Yards</u>
Morehead City Inner Harbor				
Range B, Range C	-45	197,000	260,000	457,000
East Leg				
West Leg & Northwest Leg	-35	79,000	15,000	94,000
Brandt Island Pump-out	varies	2,500,000	0	2,500,000
Beaufort Harbor				
Bulkhead Channels (Ranges 1 and 2)	-15	28,000	21,000	49,000
TOTALS		<u>2,804,000</u>	<u>296,000</u>	<u>3,100,000</u>

-- End of Section --